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PATENT  
VOI0219

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
Harald Hoffeld, et al  
Serial No.: 09/600,941  
Filed: September 13, 2000  
Title: HYDRODYNAMIC COUPLING

81B  
Group: 3745

Examiner: Frank D. Lopez 8/13/02

AMENDMENT

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

In response to the Office Action dated February 1, 2002, a request for approval of drawing changes and a Petition for Extension of Time has been submitted in separate letters herewith. Also in response to the Office Action, please amend the above-identified application as follows:

IN THE SPECIFICATION

Please delete the first paragraph of page 1 and insert the following:

BACKGROUND OF THE INVENTION

- B1
1. Field of the Invention.  
The invention relates to a hydrodynamic coupling.
  2. Description of the Related Art.

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Please insert the following heading before the paragraph beginning on page 2, line 27:

B2  
BRIEF SUMMARY OF THE INVENTION

Please insert the following heading before the paragraph beginning on page 6, line 15:

B3  
BRIEF DESCRIPTION OF THE DRAWINGS

Please delete the paragraph beginning on page 6, line 22 and insert the following two paragraphs in its place:

B4  
Fig. 2a1 shows a first possible cross-section of the connection channel between the operating space and the outer circumference of the pump blade wheel;

*corrigendum*  
Fig. 2a2 shows a second possible cross-section of the connection channel between the operating space and the outer circumference of the pump blade wheel;

*B5*  
Please insert the following heading before the paragraph beginning on page 6, line 29:

**DETAILED DESCRIPTION OF THE INVENTION**

**IN THE CLAIMS**

Please cancel claims 1-15. Please add new claims 16-30 as follows:

- sub 201*  
*B4*
16. A hydrodynamic coupling, comprising:
    - a pump blade wheel and a turbine blade wheel, which together form at least one toroidal operating space capable of receiving an operating medium;
    - a housing containing said pump blade wheel at least partially in an axial direction, said housing and at least said pump wheel forming an intermediate space;
    - said pump blade wheel defining at least one connection channel between said toroidal operating space and said intermediate space, said connection channel having at least one directional component oriented essentially tangential to the contour of the circulation of said operating medium in an operating state between said pump blade wheel and said turbine blade wheel, such that a rinsing effect of the operating medium is achieved in the intermediate space.
  17. A hydrodynamic coupling according to Claim 16, wherein said housing surrounds the coupling in said operating state.
  18. A hydrodynamic coupling according to Claim 17, wherein said housing is coupled at least indirectly to said pump blade wheel.
  19. A hydrodynamic coupling according to Claim 17, wherein said housing is coupled at least indirectly to said turbine blade wheel.
  20. A hydrodynamic coupling according to Claim 16, wherein said connection channel is oriented in the direction of the circulation contour of the flow circulation of said operating medium flow circulation in said operating state between said pump blade wheel and said turbine blade wheel.
  21. A hydrodynamic coupling according to Claim 16, wherein said connection channel forms a straight line progression free of directional changes.